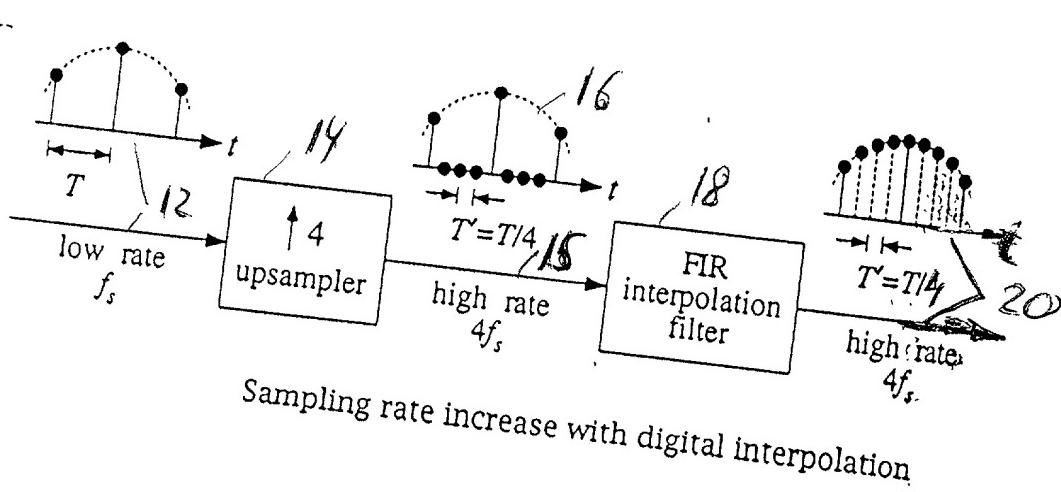


Pulse Amf

09522130-100414

Fig.

Wolfsburg - 104 / Frankfurt - 193

Prov Art

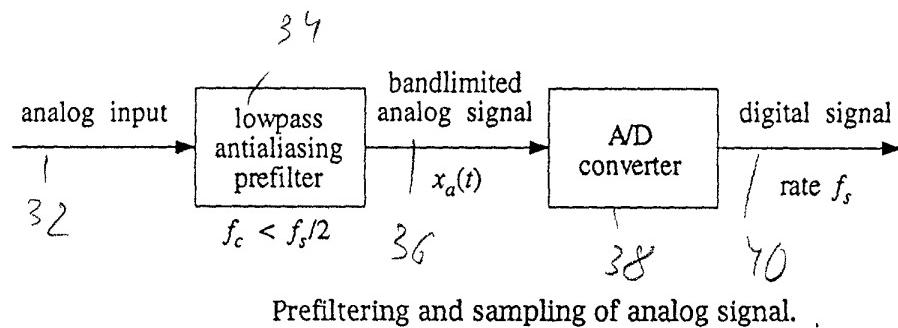


Fig. 2

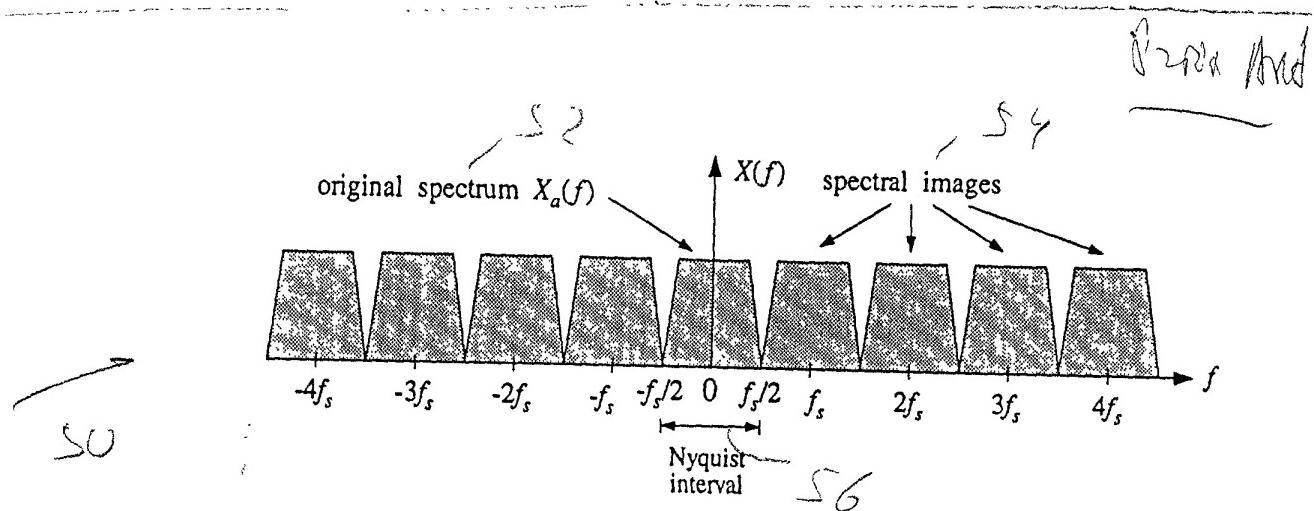


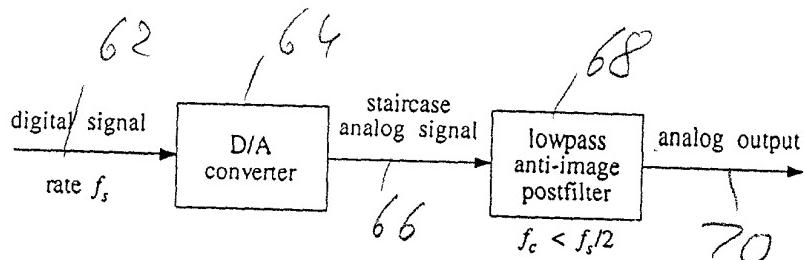
Fig 3

Spectrum of signal sampled at low rate  $f_s$ .

Sideband-104 / Tank-193

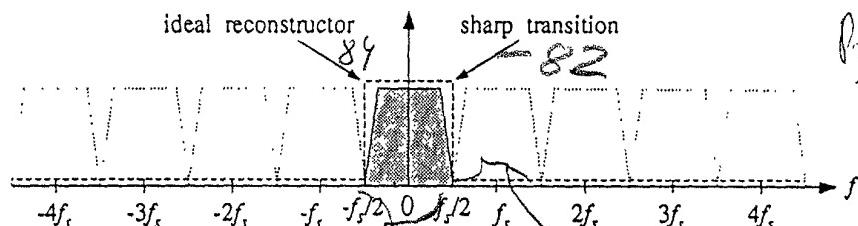
Wideband - 104/Tank - 193

Prashant



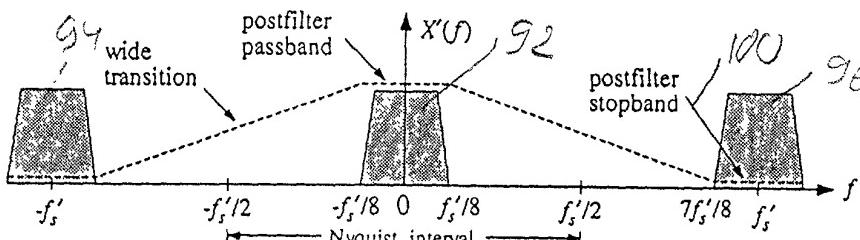
Analog reconstruction of sampled signal.

Fig. 4



Ideal reconstructor removes spectral images due to sampling.

Prashant



Spectrum of signal resampled at high rate  $4f_s$ , and postfilter requirements.

Fig. 6

Wideband - 104/Tank - 193

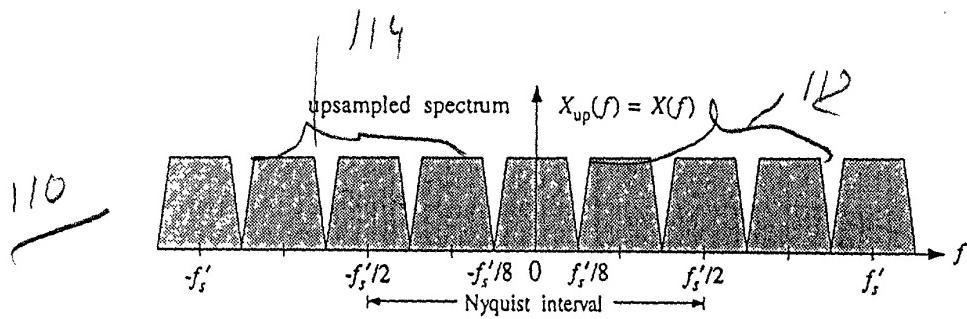
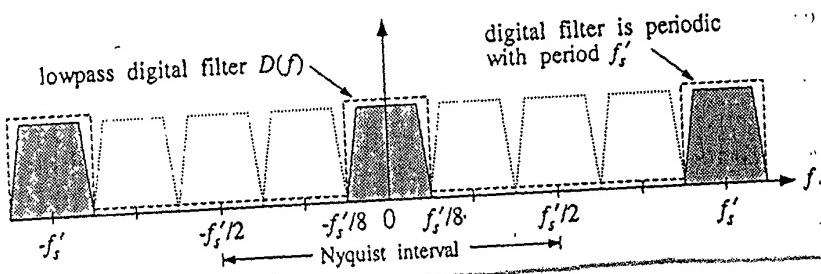


Fig 16.7

Spectrum of low-rate samples with respect to the high rate  $4f_s$ .

120

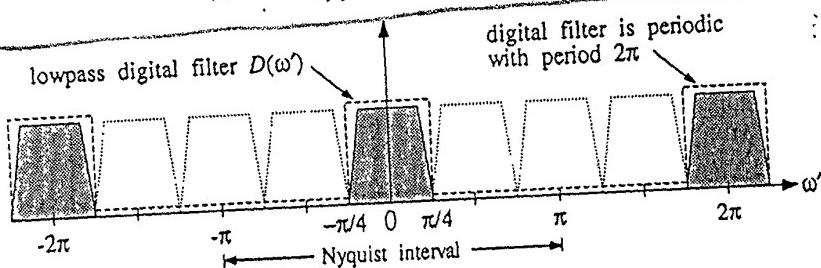
Fig 16.8B



Perky Art

130

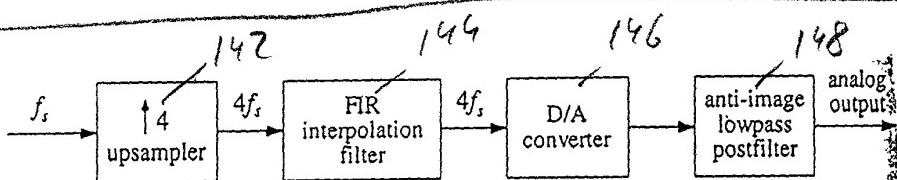
Fig 16.8A



Perky Art

High-rate FIR interpolator removes intermediate spectral images.

140



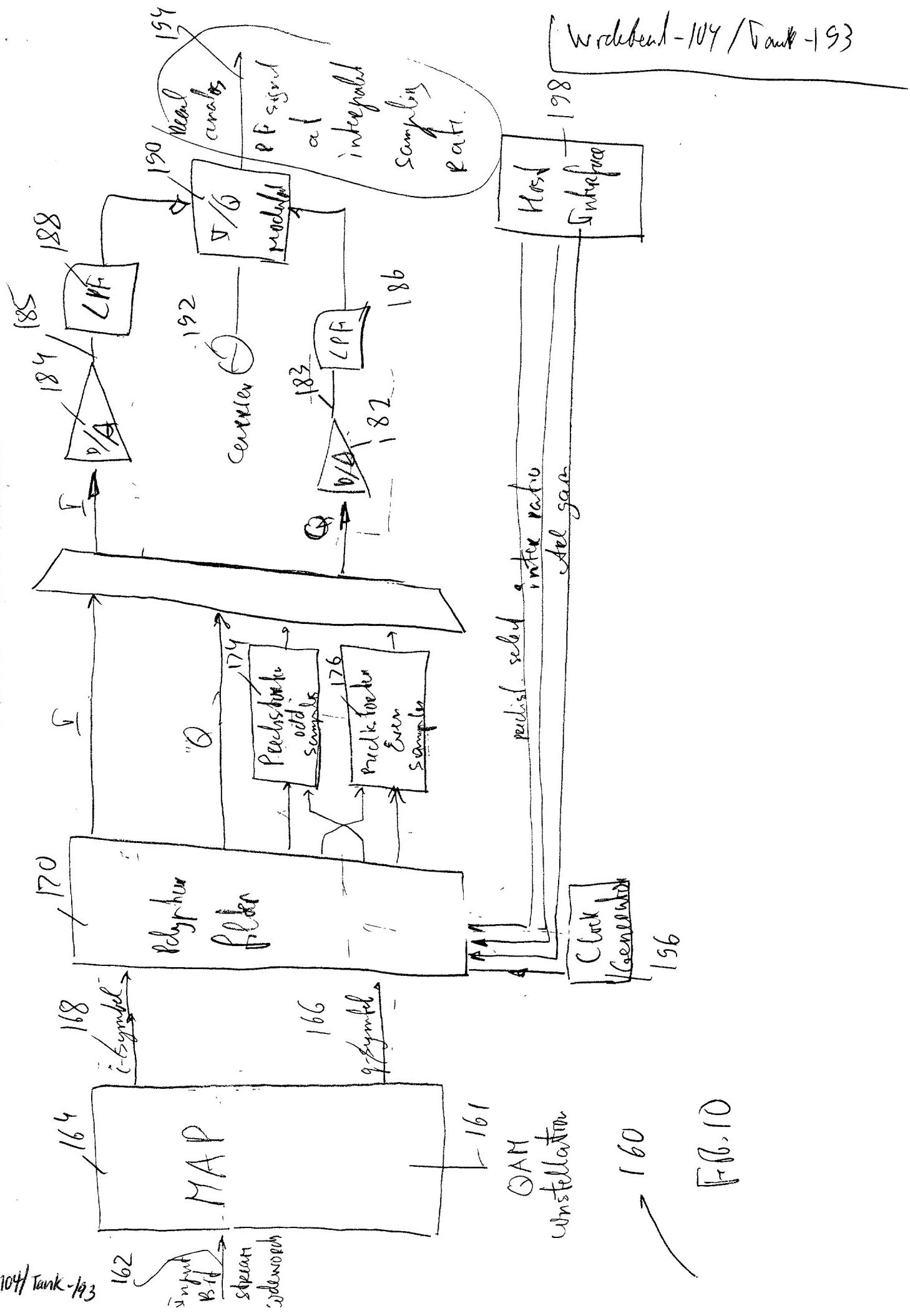
Perky Art

4-times oversampling digital filter helps analog reconstruction.

Fig 16.9

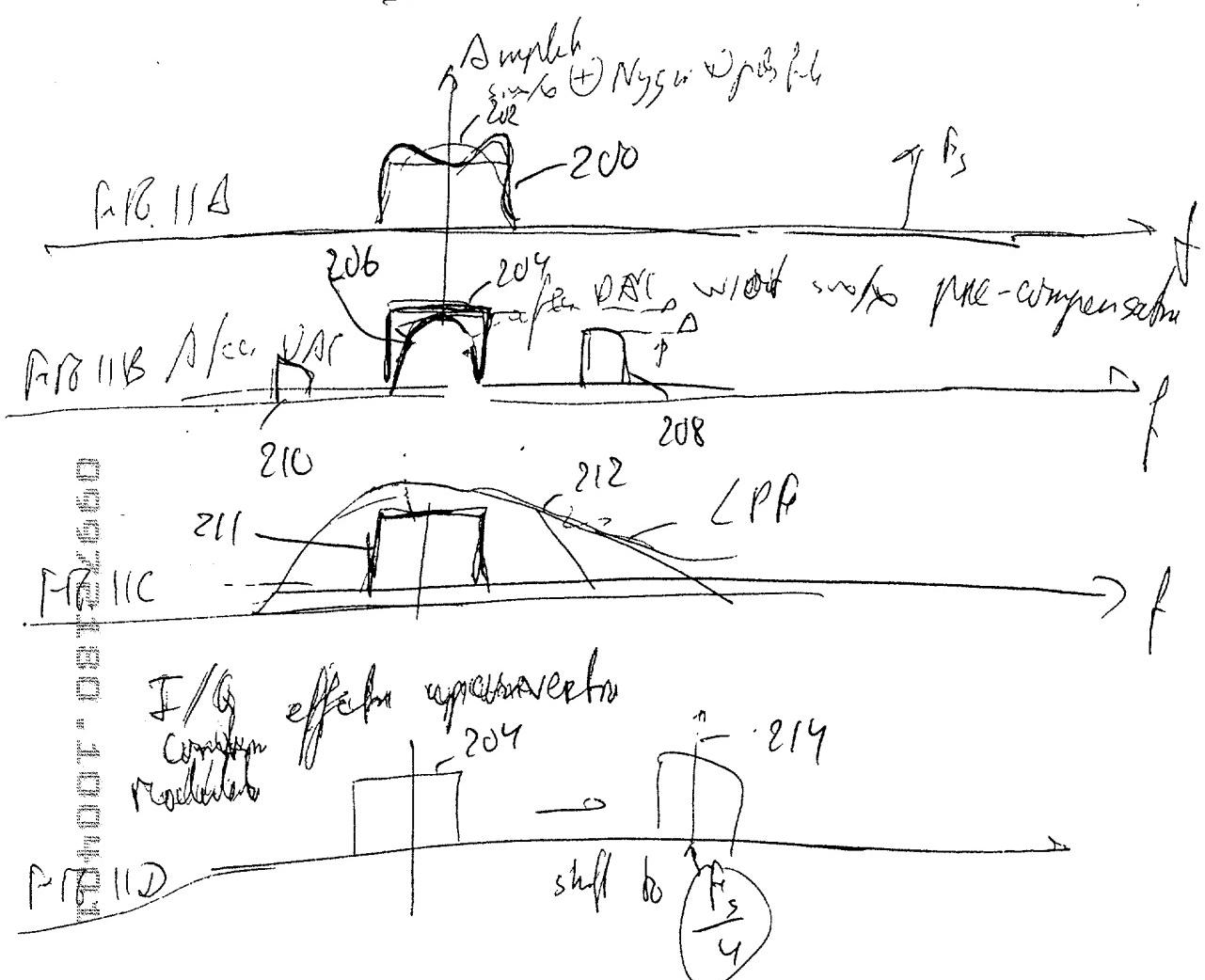
Bases and Rule

卷之三



Widdebond-104/Nank-193

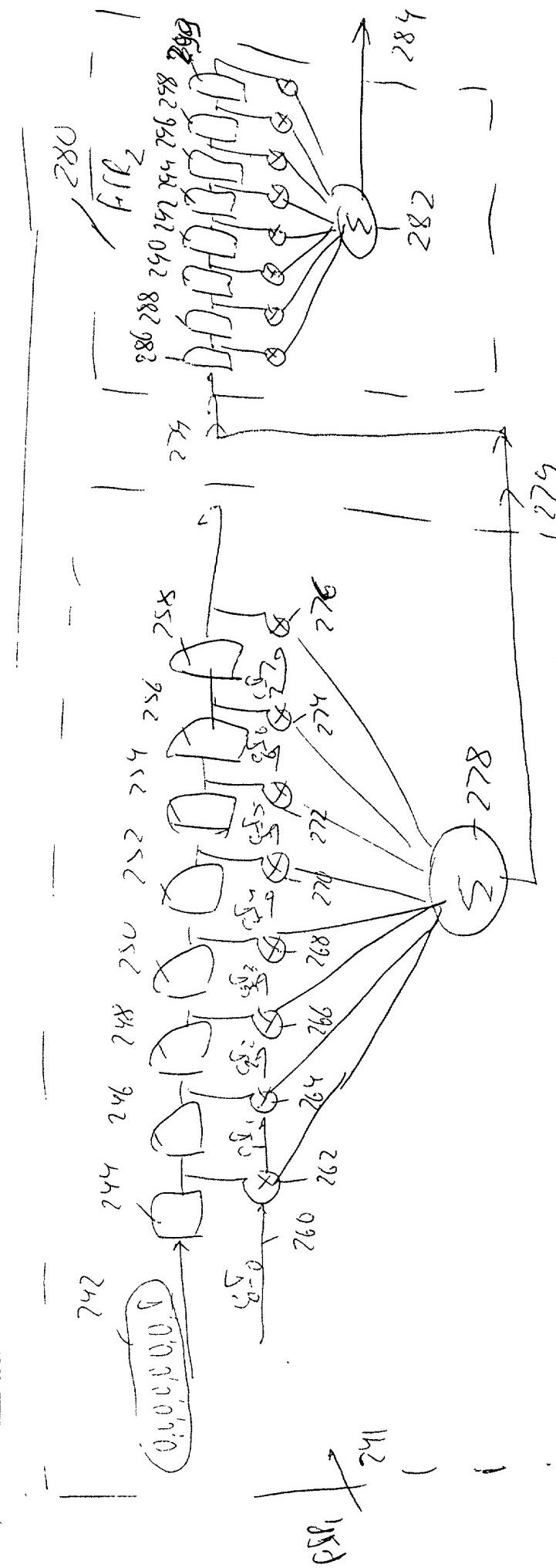
Barefoot Walk



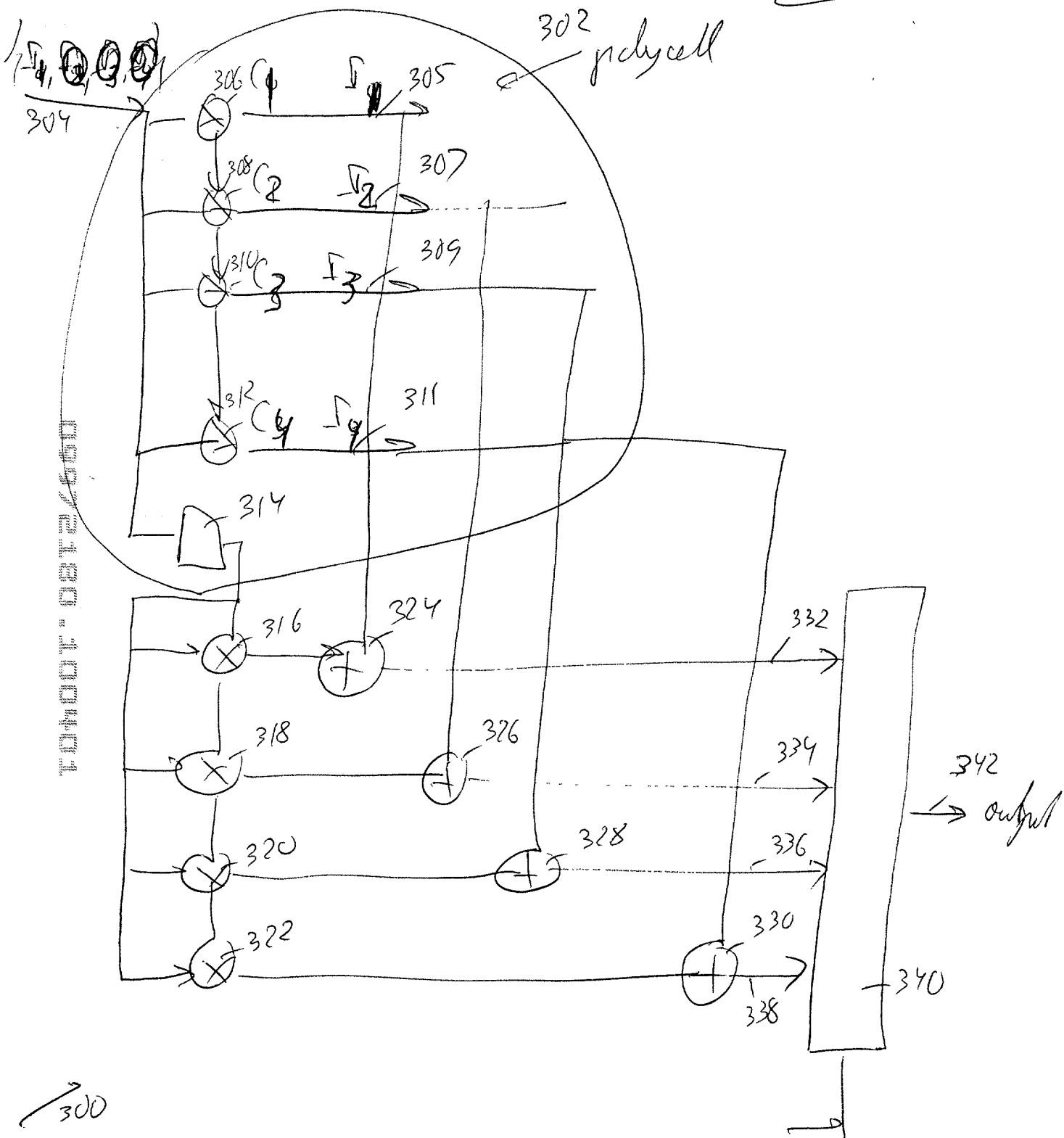
Widdebond-104/Nank-193

Wade - 104 / Park - 193

July 16. 12



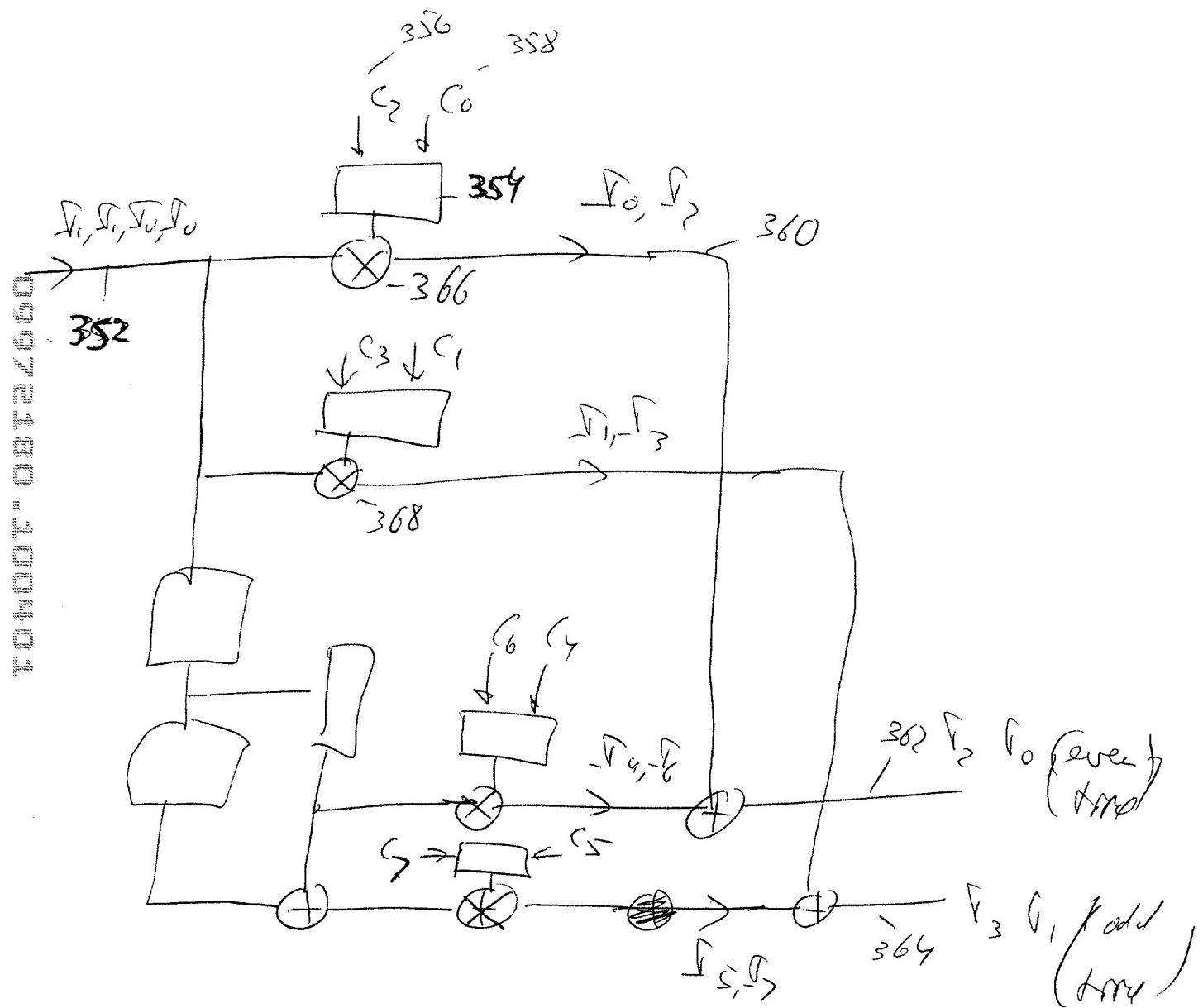
Workout - 104 Rank - 193



300

FIG. 13

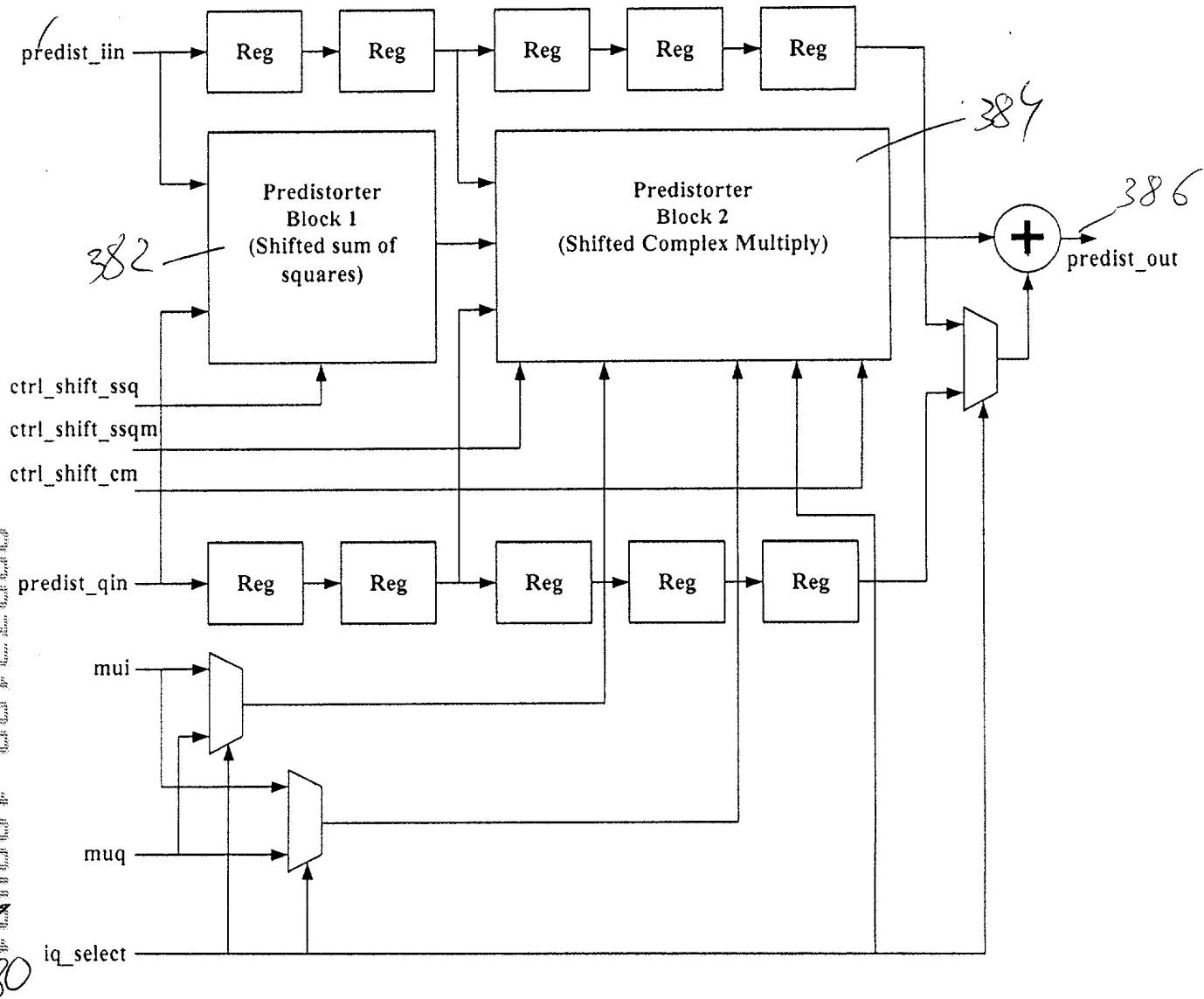
Wobbe - 104 / Tark - 193



350

Fig. 14

381

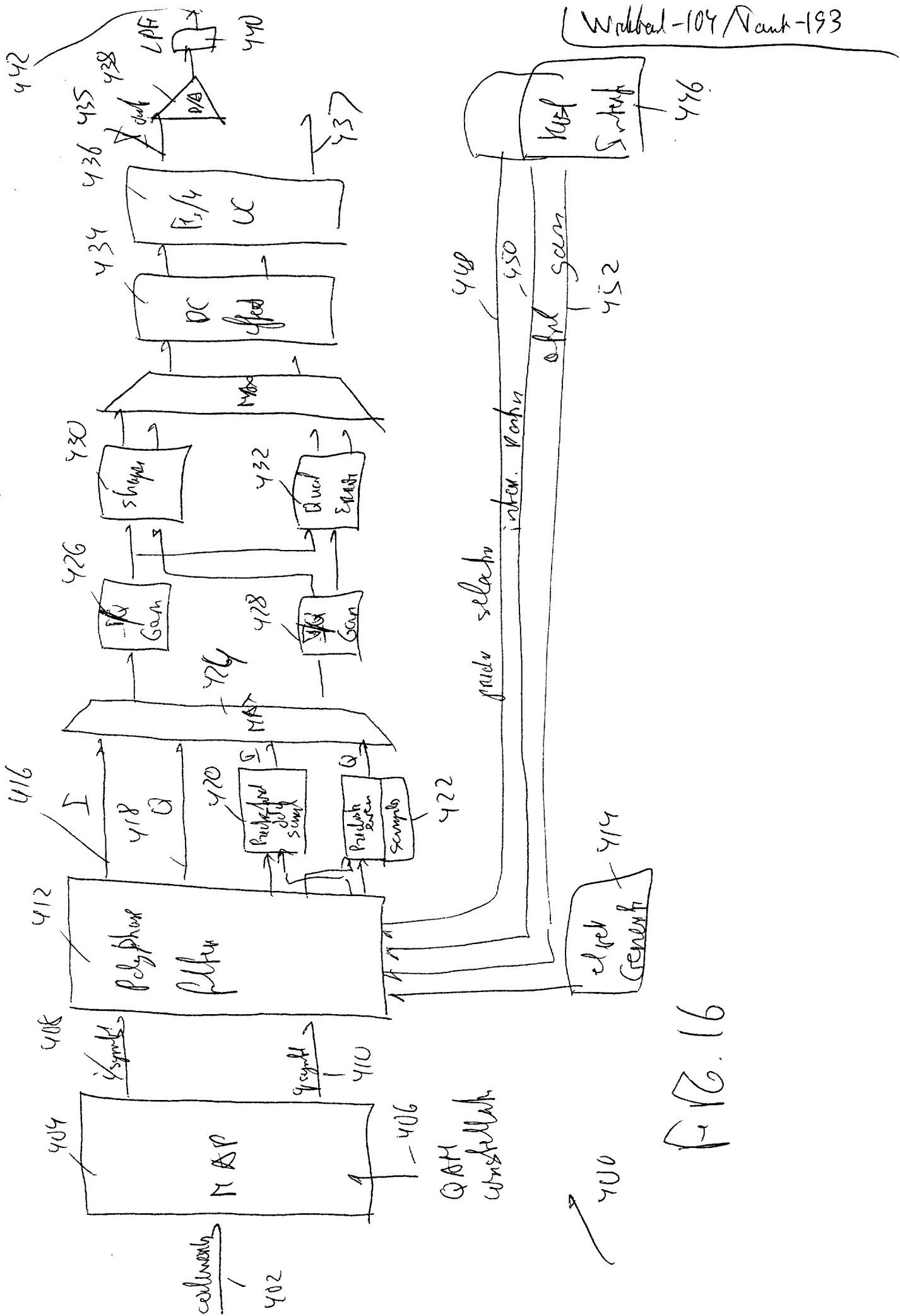


380 381 382 383 384 385 386

Fig. 15

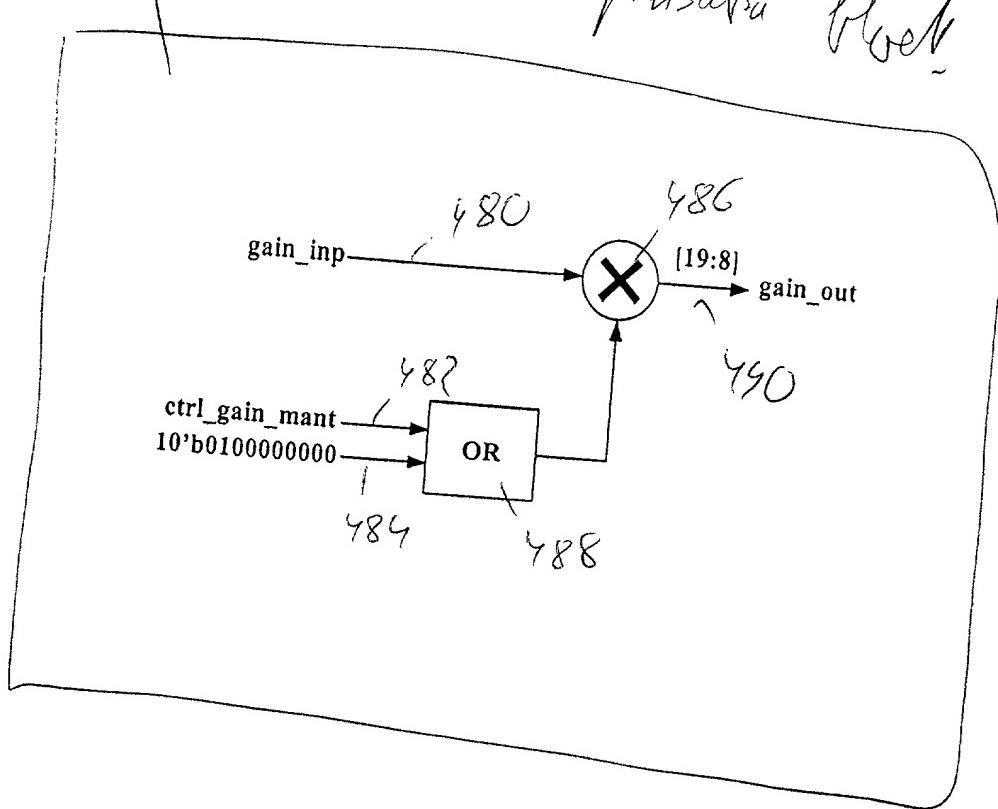
11

## Classical Myth



Wadebel-104 / Nach-193

I/O Gain Control block



426

P.R. 17

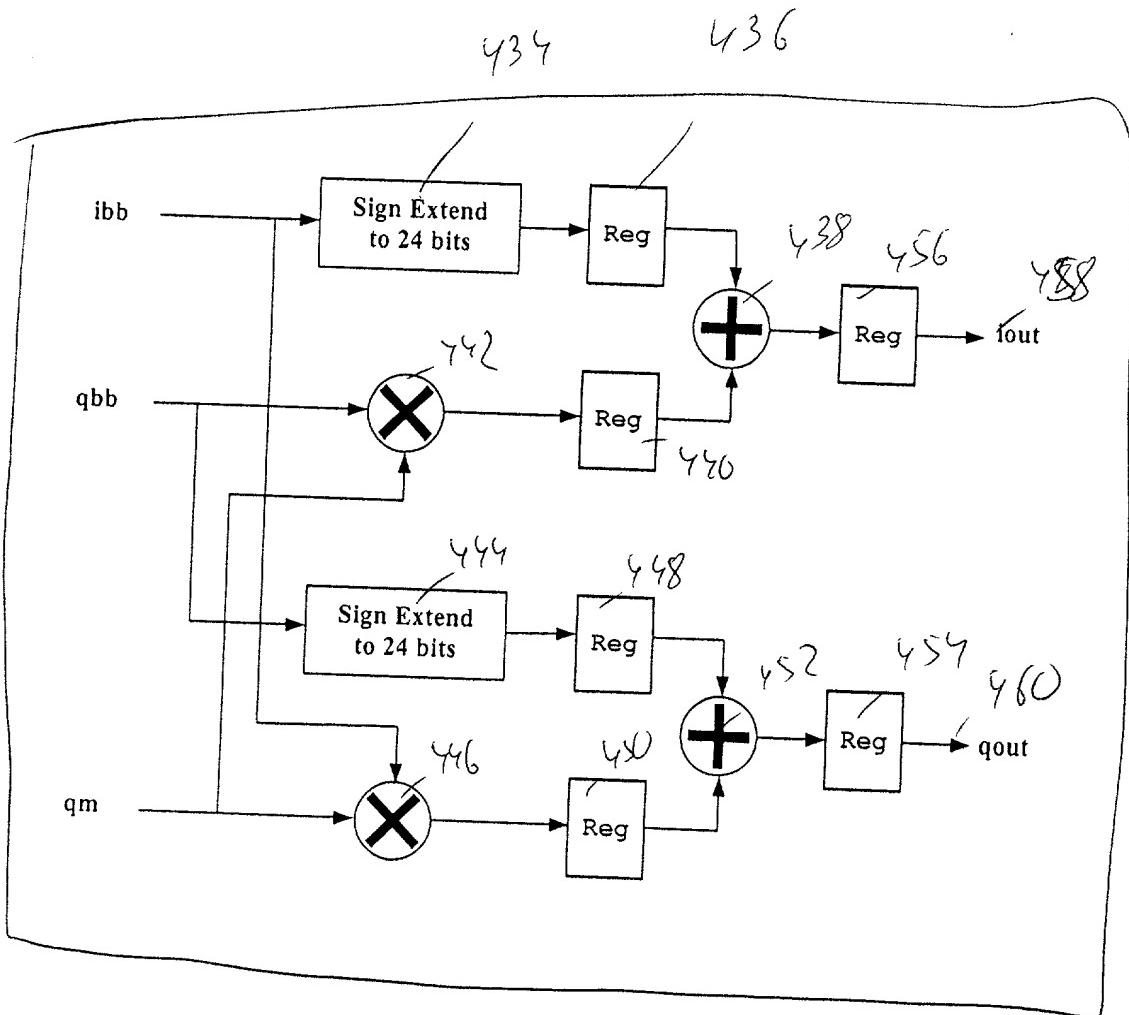
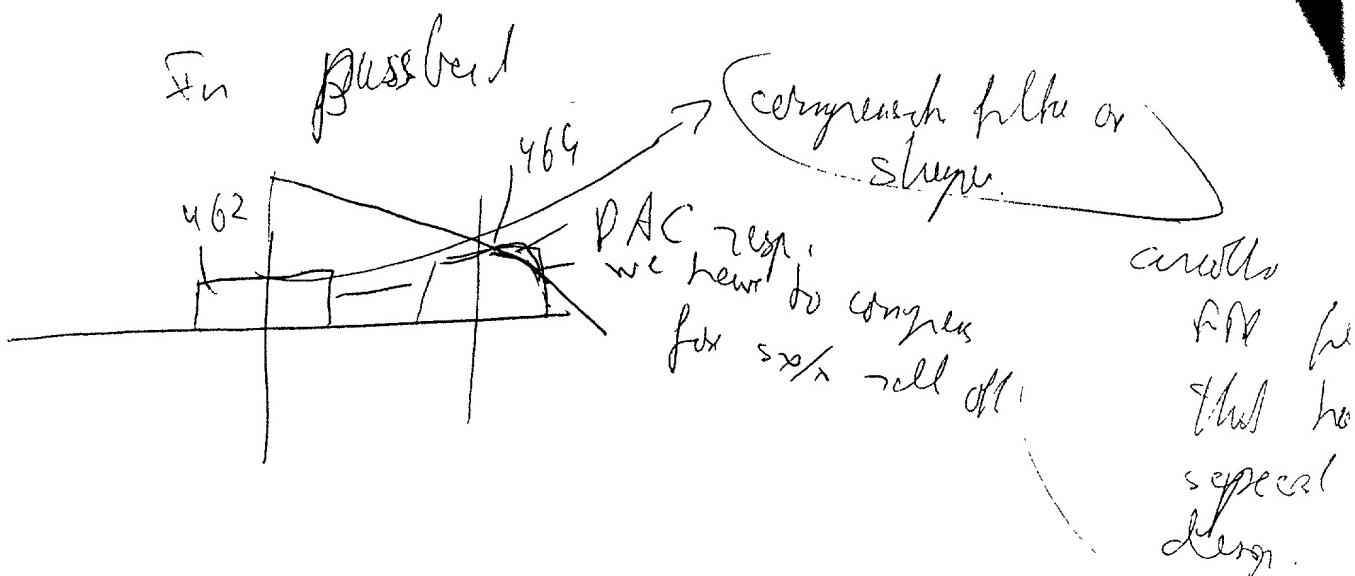


Fig. 18

Passed

Wavelength - 107 / Dark - 193



In (passed) slope filter has to be complex

Fig R 19A

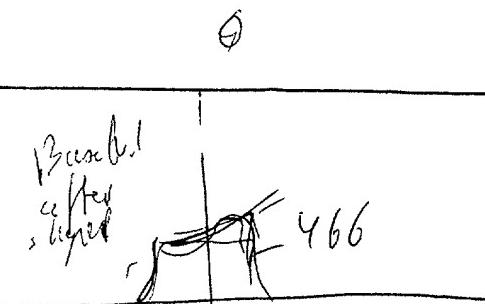


Fig R 19B

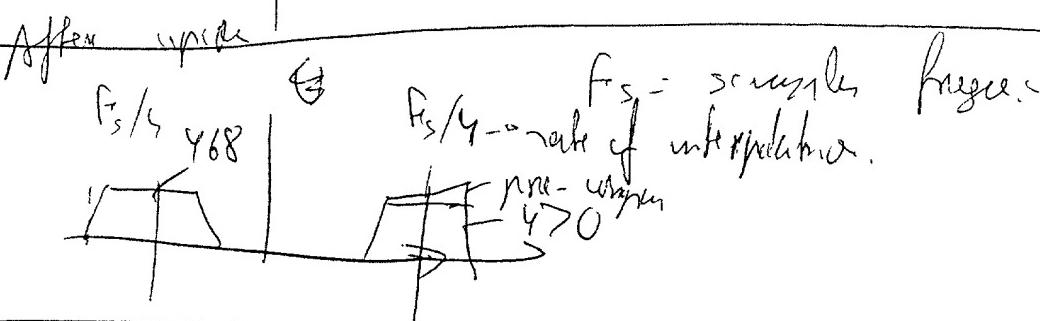


Fig R. 19C

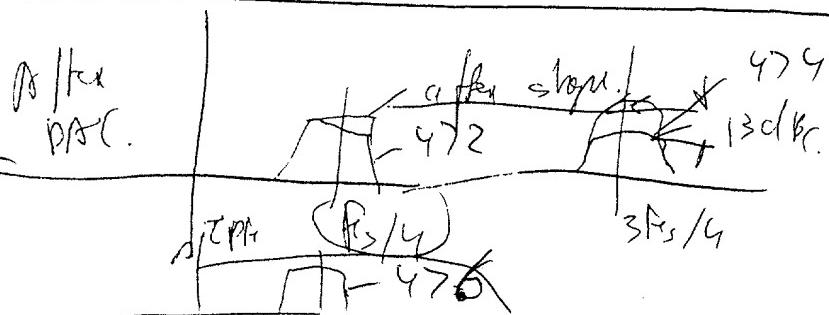
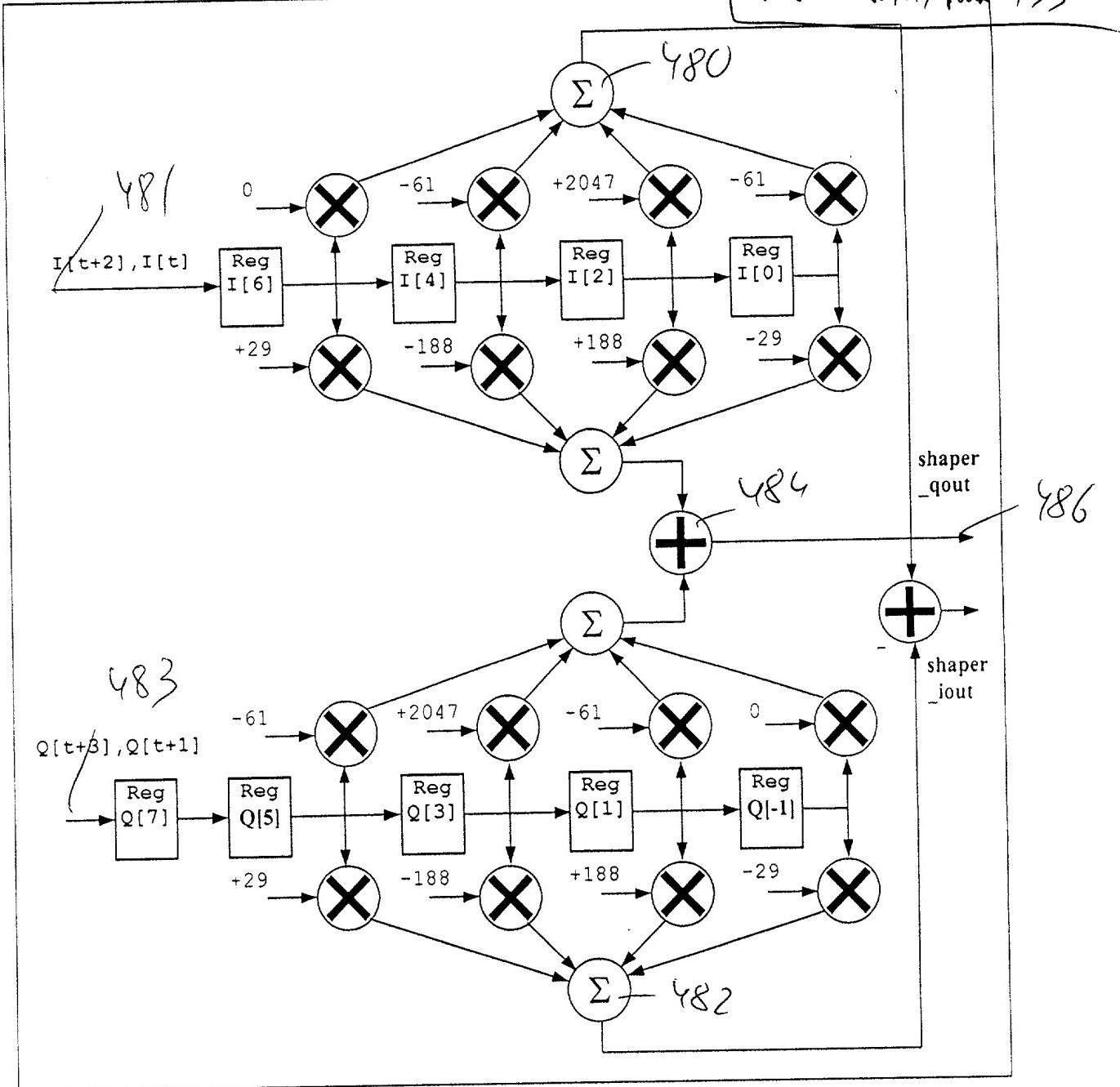
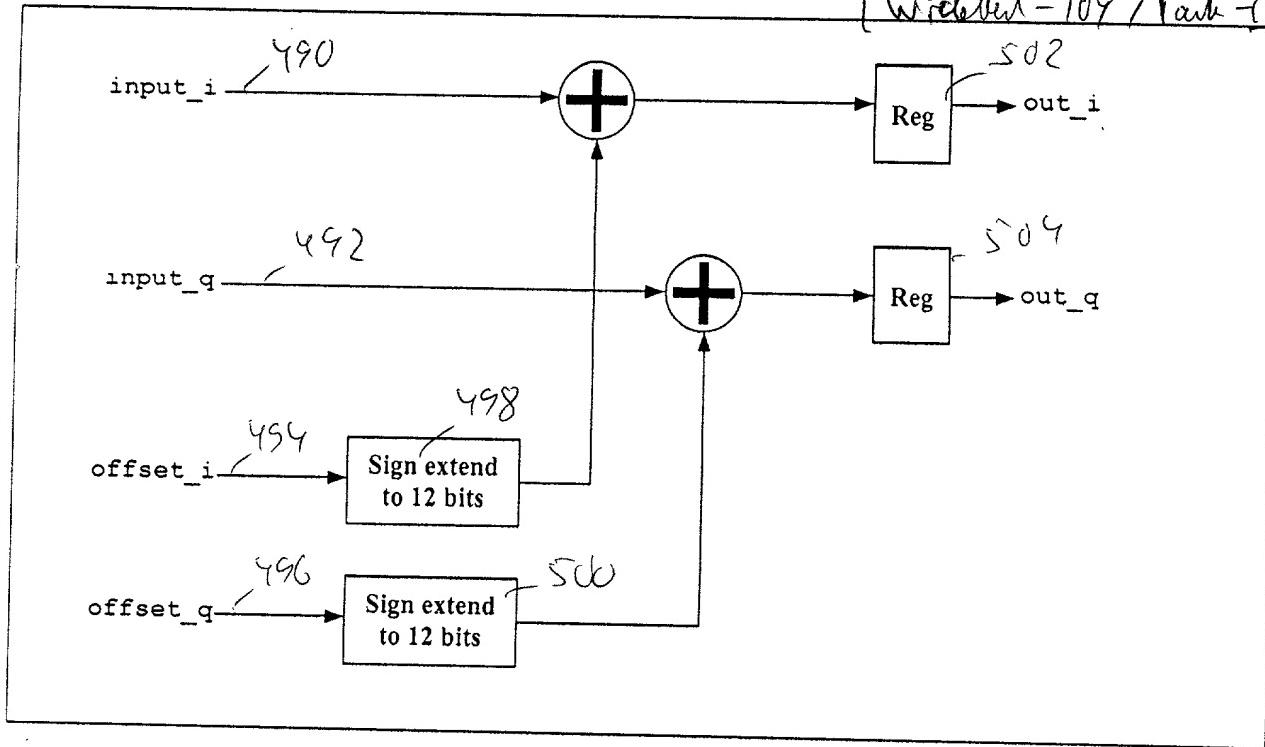


Fig R. 19E



DAC Compensation Filter

FIG 20

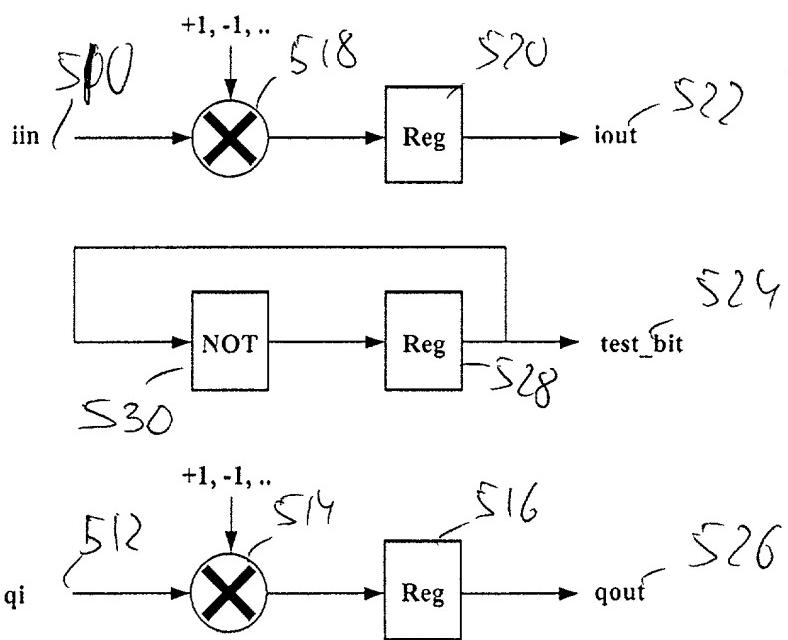


DC Offset Compensation

~~Design Specification~~

Y34

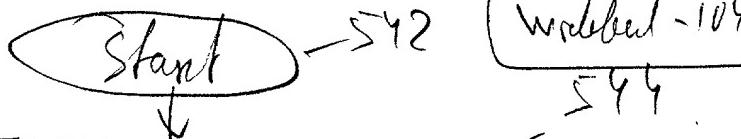
6.21

 $F_s/4$  Upconverter

T0400111660

6

F16, 22



Wideband-104/Tank-193

544

Generating a plurality of I and Q components of symbols by mapping an input bit stream comprising a plurality of digital codewords into a QAM constellation.

546

Bandlimiting, quantizing, interpolating, the plurality of the symbols by utilizing a Polyphase filter in each I and Q channels separately at a baseband/passband frequency.

548

Selecting a passband or a baseband mode based on complexity of the QAM constellation.

550

Generating an analog output signal in the passband or baseband mode.

552

end

540

FB.23



Initially selecting the passband mode if the QAM constellation includes less than 64 QAM plant points, and initially selecting the baseband mode, if the QAM constellation includes more than 64 QAM plant points.

*Test Condit #1*

If the QAM constellation includes less than 64 QAM plant points?

566

NO

Initially selecting the passband mode.

574

568

*Test Condit #2*

until a D/A conversion speed reaches a maximum passband conversion speed?

576

and

until an output symbol rate reaches a maximum passband symbol output rate?

578

580 Yes

582

NO

Subsequently switching to the baseband mode in order to double the maximum passband conversion speed and to double the maximum passband symbol output rate.

584

End

560

AB.24